

TRANSLATION **PATENT COOPERATION TREATY**
PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 02PA0200 PCT	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/012011	International filing date (<i>day/month/year</i>) 23.10.2004	Priority date (<i>day/month/year</i>) 12.12.2003
International Patent Classification (IPC) or national classification and IPC B60R21/01		
Applicant CARL FREUDENBERG KG		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 6 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows: <ul style="list-style-type: none"> <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

international search (Rule 12.3 and 23.1(b))
 publication of the international application (Rule 12.4)
 international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished
 the description:
 pages 1-13 as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____
 the claims:
 nos. 1-32 as originally filed/furnished
 nos.* _____ as amended (together with any statement) under Article 19
 nos.* _____ received by this Authority on _____
 nos.* _____ received by this Authority on _____
 the drawings:
 sheets 1/3-3/3 as originally filed/furnished
 sheets* _____ received by this Authority on _____
 sheets* _____ received by this Authority on _____
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____
4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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1. Statement

Novelty (N)	Claims	1–32	YES
	Claims		NO
Inventive step (IS)	Claims	1–32	YES
	Claims		NO
Industrial applicability (IA)	Claims	1–32	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

1. Prior art documents

This report makes reference to the following documents:

- D1: LU 90 583 A1 (IEE INTERNATIONAL ELECTRONICS & ENGINEERING SARL), 19 November 2001 (2001-11-19)
- D2: US-B1-6 371 552 (NARITA MASANORI ET AL), 16 April 2002 (2002-04-16)
- D3: EP-A-1 209 026 (I.G. BAUERHIN GMBH), 29 May 2002 (2002-05-29)
- D4: US 2002/000742 A1 (WATO KOJI ET AL), 3 January 2002 (2002-01-03)
- D5: EP-A-0 873 903 (VOLKSWAGEN AG), 28 October 1998 (1998-10-28)

2. Claims 1–32

2.1 Claim 1, novelty

Document **D1** is considered to constitute the prior art closest to the subject matter of claim 1 and discloses (the references in parentheses are to that document; see the figures) a combined sensor

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and heating element, in particular for a motor vehicle seat, comprising a sensor mat with a heating conductor arrangement (28), the sensor mat being designed as a flexible strip conductor foil which comprises a support foil (12, 14) and strip conductors (22, 24) of a sensor arrangement on the surface of the support foil.

The subject matter of claim 1 therefore differs from the known combined sensor and heating element in that the heating conductors of the heating conductor arrangement are arranged on the same support foil surface, between or next to the strip conductors of the sensor arrangement.

The subject matter of claim 1 is thus novel (PCT Article 33(2)).

2.2 Claim 1, inventive step

The present invention can therefore be considered to address the problem of further improving the known combined sensor and heating element.

The solution to this problem, as proposed in claim 1 of the present application, involves an inventive step (PCT Article 33(3)) for the following reasons:

Although the feature of a combined sensor and heating element comprising a sensor mat with a heating conductor arrangement, as described in

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document **D1**, is at least known *per se* from the prior art, the solution according to the features of claim 1 does not appear in its totality to be known from or suggested by the prior art.

It obviously leads to a simplified manufacture of a combined sensor and heating element, with reduced material consumption.

2.3 Claim 18 directed to a vehicle seat

Claim 18, which is directed to a vehicle seat comprising at least one combined sensor and heating element as per one of the claims 1-17, necessarily also meets the requirements of PCT Article 33(2) and 33(3), together with the former.

2.4 Claim 21 directed to a process

Claim 21, which is directed to the manufacture of a combined sensor and heating element as per one of the claims 1-20, necessarily also meets the requirements of PCT Article 33(2) and 33(3), together with the former.

2.5 Claim 22 directed to a process

Claim 22, which is directed to a process for manufacturing a combined sensor and heating element as per one of the claims 1-21, necessarily also meets the requirements of PCT Article 33(2) and 33(3), together with the former.

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2.6 Dependent claims 2-17, 19, 20 and 23-32

Claims 2-17 are dependent on claim 1, and thus also meet the requirements of PCT Article 33(2) and 33(3) for novelty and inventive step.

Claim 19 and 20 are dependent on claim 18, and thus also meet the requirements of PCT Article 33(2) and 33(3) for novelty and inventive step.

Claims 23-32 are dependent on claim 11 or claim 22, and thus also meet the requirements of PCT Article 33(2) and 33(3) for novelty and inventive step.

3. Industrial applicability

The subject matter of claims 1-32 also appears to meet the requirements of PCT Article 33(4) since it can be produced or implemented and also used in the automobile industry.